According to International Patient Classification (IPC) or to both national classification and IPC  8. FIELDS SEARCHED  The Total Classification system followed by describation symbols)  Documentation assurched cities than misimum documentation to the extent that such documents are included in the flickle searched  Einctronic data base consulted during the International search (name of data base and, where practical, search terms used)  EPO—Internal , BIOSIS, WPI Data , PAJ, EMBASE  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Category*  Category*  Category*  Category*  Category*  At THEUNISSEN ET AL.: "Long—term engrafting umbilical cord blood cells are preserved after exvivo culture" in strom—free culture" (online! May 2001 (2001—05), KAREL A DICKE AND ARMAND KEATINS , XP002332369 Retrieved from the Internet: URL: http://mmserver.cjp.com/gems/blood/ABM  T. 10. Verfaillie.pdf?  page 599 — page 603  —/—   Patent tamly members are listed in annex.  **Special categories of diad documents:  "A document defining he general radio of the art which is not engineering the general radio of the profits
RELOS SEARCHED
Molecument documentation searched (classification system followed by describation symbols)  IPC 7 C12N  Documentation searched other than minimum documentation to the extent that such documents are included in the flekts searched  Electronic data base consulted during the international search (name of data base and, where practical search terms used)  EPC—Internal, BIOSIS, WPI Data, PAJ, EMBASE  C. DOCUMENTS CONSIDERED TO BE RELEVANY  Category* Catalon of document, with indication, where appropriate, of the relevant passages  X K THEUNISSEN ET AL.: "Long—term engrafting unbilical cond blood cells are preserved after ex vivo culture in strom—free culture" ("online! May 2001 (2001—05), KAREL A DICKE AND ARMAND KEATING, XP002332369  Retrieved from the Internet: URL: http://mmsserver.c.jp.com/gems/blood/ABM  T. 10. Verfaillie.pdf> page 599 - page 603  —/—  X Patent family members are listed in annex.  **Special categories of cited documents:  **A document distribute to get profitting relevance  **Consideration of the general date of the art which is not consideration by the page of the published on er after the international fling date of priority date and not in conflict with the application but affing date of priority date and not in conflict with the application but affing date of priority date and not in conflict with the application but affing date of priority date and not in conflict with the application but affing date of priority date and not in conflict with the application but affing date of priority date and not in conflict with the application but affing date of priority date and not in conflict with the application but affing date of priority date and not in conflict with the application but and the conflict of particular relevance; the claimed invention invention which is not decimal to private and another conflict with the application but which is not decimal to particular relevance; the claimed invention invention which is not decimal to private and priority data and not in conflict with the applica
Documentation searched other than retainment documentation to the extent that such documents are included in the fields searched  Electronic data base consulted during the international search (name of data base) and, where practical, search terms used)  EPO—Internal, BIOSIS, WPI Data, PAJ, EMBASE  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category* Clation of document, with indication, where appropriate, of the relevant passages  K. THEUNISSEN ET AL.: "Long—term engrafting unbillical cord billood cells are preserved after ex vivo culture in strom—free culture" (Online! May 2001 (2001—05), KAREL A DICKE AND ARMAND KEATING, XP002332369  Retrieved from the Internat: URL: http://mmserver.cjp.com/gems/blood/ABM  T.10. Verfaillie.pdf?  page 599 — page 603  —/—     Year   Patent tamily members are listed in annex.   The later document is difficult to be of patituals relevante to be of patituals relevante to particular relevance or priority date and not in conflict with the application but considered to be of patituals relevance; the claimed inventor and the considered to later at the international fling date or priority date and not be considered to be of patituals relevance; the claimed inventors are international to be of patituals are devented to exclusive the publication date of another with the majority of another with the majority claim(b) or which is not document of patituals relevance; the claimed inventors are not be considered to later at the scheme done in the comment of patituals relevance; the claimed inventors are not be considered to later at the later at an except of the patitual relevance to later the inventor and the considered ones or creation to be considered to later at the later at the which is not considered to each patitual relevance; the claimed inventors are relevance to the patitual relevance; the claimed inventors are relevance to the patitual relevance to the considered to later at the claimed inventors.
Documentation searched other than minimum documentation to the extent that such documents are included in the flicks searched  Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  EPO—Internal, BIOSIS, WPI Data, PAJ, EMBASE  C. DOCUMENTS CONSIDERED TO BE RIBLEVANT  Category* Citation of document, with indication, where appropriate, of the relevant passages  Relevant to daim No.  X K THEUNISSEN ET AL.: "Long—term engrafting umbilical cord blood cells are preserved after ex vivo culture in strom—free culture" "Online!  May 2001 (2001—05), KAREL A DICKE AND ARMAND KEATING, XP002332369  Retrieved from the Internet:  URL:http://minserver.cjp.com/gems/blood/ABM  T.10. Verfaillile_pdf> page 599 — page 603  —/—  X Patent family members are listed in annex.  *Special categories of cited documents:  **Cocument defining the general state of the art which is not corrected to be of particular relevance  **E: easiled document but published on or state the international filing date or priority date and not in conflict with the application but revention of the corrected relevance of the particular relevance  **E: easiled document to be of particular relevance  **E: easiled document to published on or state the international filing date or particular relevance in the minimum to be considered too which is not document to be of particular relevance in the minimum too comments and the ordered novel or cannot be considered too which is not obtained to sealther in the minimum too include on inventive slep when the document is purchased in a large of the submit of particular relevance in claimed invention in the comment is particular relevance.  **Cocument of particular relevance in claimed invention in the comment is easier too include the minimum to the considered too.  **Cocument of particular relevance.  **Cocument
Electronic data base consulted during the Intermational search (name of data base and, where practical, search terms used)  EPO—Internal, BIOSIS, WPI Data, PAJ, EMBASE  C.DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to dairn No.  X  K THEUNISSEN ET AL.: "Long—term engrafting umbilical cord blood cells are preserved after ex vivo culture in strom—free culture" 'Online! May 2001 (2001—05), KAREL A DICKE AND ARMAND KEATING, XP002332369  Retrieved from the Internet:  URL: http://manserver.cjp.com/gems/blood/ABM  T.10.Verfaillie.pdf> page 599 — page 603  —/—   X  Patent family members are listed in annex.  *Special categories of clied documents:  "Y" document defining the general date of the ant which is not considered to be of patticular relevance."  "E easiled occument but published on or after the Intermational filing date or price of the content of the conten
EPO-Internal, BIOSIS, WPI Data, PAJ, EMBASE  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category* Citation of document, with indication, where appropriate, of the relevant pessages  Relevant to claim No.  X  K THEUNISSEN ET AL.: "Long-term engrafting umbilical cord blood cells are preserved after ex vivo culture in strom-free culture" ("Online! May 2001 (2001-05), KAREL A DICKE AND ARMAND KEATING, XP002332369  Retrieved from the Internet: URL: http://mmserver.cjp.com/gems/blood/ABM  T.10.Verfaillie.pdf> page 599 - page 603  -/  *Special categories of clied documents:  "A" document defining the general state of the art which is not consistent to be of particular relevance  "E" earlier document which may throw doubts on priority claim(e) or which is decided consistent on extreme the selection and in confliction."  "C coursent which may throw doubts on priority delam(e) or which is decided consistent on extreme the selection and in confliction of cramnol be consistent on which is decided consistent on the manual invention.  "I" document of particular relevance; the claimed invention which may throw doubts on priority delam(e) or document or particular relevance; the claimed invention which may throw doubts on priority delam(e) or document or particular relevance; an inventive size to when the
EPO-Internal, BIOSIS, WPI Data, PAJ, EMBASE  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category* Citation of document, with indication, where appropriate, of the relevant pessages  Relevant to claim No.  X  K THEUNISSEN ET AL.: "Long-term engrafting umbilical cord blood cells are preserved after ex vivo culture in strom-free culture" ("Online! May 2001 (2001-05), KAREL A DICKE AND ARMAND KEATING, XP002332369  Retrieved from the Internet: URL: http://mmserver.cjp.com/gems/blood/ABM  T.10.Verfaillie.pdf> page 599 - page 603  -/  *Special categories of clied documents:  "A" document defining the general state of the art which is not consistent to be of particular relevance  "E" earlier document which may throw doubts on priority claim(e) or which is decided consistent on extreme the selection and in confliction."  "C coursent which may throw doubts on priority delam(e) or which is decided consistent on extreme the selection and in confliction of cramnol be consistent on which is decided consistent on the manual invention.  "I" document of particular relevance; the claimed invention which may throw doubts on priority delam(e) or document or particular relevance; the claimed invention which may throw doubts on priority delam(e) or document or particular relevance; an inventive size to when the
C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category* Citation of document, with indication, where appropriate, of the relevant passages  K THEUNISSEN ET AL.: "Long—term engrafting umbilical cord blood cells are preserved after ex vivo culture in strom—free culture" 'Online! May 2001 (2001–05), KAREL A DICKE AND ARMAND KEATING, XP002332369  Retrieved from the Internet: URL:http://mmserver.cjp.com/gems/blood/ABM  T. 10. Verfaillie.pdf> page 599 — page 603  -/  *Special categories of cited documents:  "A' document defining the general state of the art which is not considered to be of particular relevance in lifting date."  "A' document defining the general state of the art which is not considered to be of particular relevance."  "E' earlier document but published on or after the imemational filing date called document which may throw double on or after the imemational filing date called document which may throw double on or after the imemational filing date called document which may throw double on or after the imemational filing date called document which may throw double on or after the imemational filing date called document which may throw double on or after the imemational filing date called document which may throw double on another which is easier document only of cannot be considered never the considered never the considered to so of particular relevance; the claimed invention cannot be considered never the considered never the particular relevance which is died to exhibit the publication date of another or document of particular relevance; the claimed invention cannot be considered never the particular relevance in the claimed invention and the particular relevance in the particular relevance in the claimed invention and the particular relevance in the claimed invention and the particular relevance in the particular relevance in the claimed invention and the particular relevance in the claimed invention and the particular relevance in the claimed invention and the particular relevance in the claimed invent
Category *   Citation of document, with indication, where appropriate, of the relevant passages
Category *   Citation of document, with indication, where appropriate, of the relevant passages
Category* Citation of document, with indication, where appropriate, of the relevant passages    Relevant to claim No.
X K THEUNISSEN ET AL.: "Long—term engrafting umbilical cord blood cells are preserved after ex vivo culture in strom—free culture" 'Online! May 2001 (2001–05), KAREL A DICKE AND ARMAND KEATING, XP002332369 Retrieved from the Internet: URL:http://mmserver.cjp.com/gems/blood/ABM T.10. Verfaillie.pdf> page 599 — page 603  ——/—  *Special categories of cited documents:  "A' document defining the general state of the art which is not considered to be of particular relevance to the considered to be of particular relevance to the claimed invention which may those doubt on or after the international filling date "L' document which may those doubts on priority claim(s) or which is cited to explain the priority data and not to conflict with the application but international filling date in the conflict of the capability in the priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but international filling date or priority data and not to conflict with the application but in
with the comment are listed in the continuation of box C.    X   Further documents are listed in the continuation of box C.    Y   Special categories of cited documents:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance; the claimed invention cannot be considered novel or cannot be considered to calculate the comment of particular relevance; the claimed invention cannot be considered to novel or cannot be considered to calculate the principle or the procedure of the principle or the procedure of the principle or the procedure of the principle or the principle or the procedure of the principle or the particular relevance; the claimed invention cannot be considered to principle and particular relevance; the claimed invention cannot be considered to principle and particular relevance; the claimed invention cannot be considered to principle or invention the principle or the princ
with the comment are listed in the continuation of box C.    X   Further documents are listed in the continuation of box C.    Y   Special categories of cited documents:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance:   Y   Cocument defining the general state of the art which is not considered to be of particular relevance; the claimed invention cannot be considered novel or cannot be considered to calculate the comment of particular relevance; the claimed invention cannot be considered to novel or cannot be considered to calculate the principle or the procedure of the principle or the procedure of the principle or the procedure of the principle or the principle or the procedure of the principle or the particular relevance; the claimed invention cannot be considered to principle and particular relevance; the claimed invention cannot be considered to principle and particular relevance; the claimed invention cannot be considered to principle or invention the principle or the princ
culture" 'Online! May 2001 (2001-05), KAREL A DICKE AND ARMAND KEATING, XP002332369 Retrieved from the Internet: URL:http://mmserver.cjp.com/gems/blood/ABM T.10.Verfaillie.pdf> page 599 - page 603  -/  *Special categories of cited documents:  'A' document defining the general state of the art which is not considered to be of particular relevance:  'E' catelier document but published on or after the international filing date  'L' document which may throw doubts on priority claim(s) or their special respont (as specified)  'L' document which may throw doubts on priority claim(s) or their special respont (as specified)  'L' document which may throw doubts on priority claim(s) or their special respont (as specified)  'L' document of particular relevance; the claimed invention cannot be considered to the comment is taken alone document by the publication date of another religion or other special respont (as specified)
May 2001 (2001-05), KAREL A DICKE AND ARMAND KEATING, XP002332369 Retrieved from the Internet: URL:http://minserver.cjp.com/gems/blood/ABM T.10.Verfaillie.pdf> page 599 - page 603  -/  *Special calegories of cited documents:  'A' document defining the general state of the art which is not considered to be of particular relevance:  'B' cautier document but published on or after the international filing date  'E' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cited nor or other special ensays (its a special cited to establish the publication date of another cited nor or other special ensays (its a special cited to establish the publication date of another cited nor or other special ensays (its a special cited to establish the publication date of another cited nor or other special ensays (its a special cited to establish the publication date of another cited nor or other special ensays (its a special cited to establish the publication date of another cited nor other special ensays (its a special cited to establish the publication date of another cited nor other special ensays (its a special cited to establish the publication date of another cited nor other special ensays (its a special cited to establish the publication date of another cited nor other special ensays (its a sp
ARMAND KEATING , XP002332369 Retrieved from the Internet: URL:http://mmserver.cjp.com/gems/blood/ABM T.10.Verfaillie.pdf> page 599 - page 603  -/  *Special calegories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance "E' earlier document but published on or after the international filing date "L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another relevance report in the processing of the same difference of the processing of the comment of particular relevance; the claimed invention cannot be considered novel or cannot be considered to the comment is taken alone document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to now the new three step when the constituent of lawnors.
Retrieved from the Internet: URL:http://mmserver.cjp.com/gems/blood/ABM  T.10.Verfaillie.pdf> page 599 - page 603  -/    X   Patent family members are listed in annex.    X   Patent family membe
T. 10. Verfaillie.pdf> page 599 - page 603  ———  Futher documents are listed in the continuation of box C.  X Patent tamily members are listed in annex.  *Special categories of cited documents:  *A' document defining the general state of the art which is not considered to be of particular relevance  *A' document but published on or after the International filing date  "E' earlier document but published on or after the International filing date  "I' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cited to particular relevance; the claimed invention cannot be considered in one of particular relevance; the claimed invention cannot be considered in one of particular relevance; the claimed invention cannot be considered in the priority date and not in conflict with the application but clied to understand the principle or theory underlying the invention cannot be considered in vention cannot be considered to live the particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone  "Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone  "Y document of particular relevance; the claimed invention cannot be considered in the principle of the particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone
Patent family members are listed in annex.  X Further documents are listed in the continuation of box C.  X Patent family members are listed in annex.  Y taker document published after the international filing date or priority date and not in conflict with the application but clied to understand the principle or theory underlying the invention.  Y document which are the international filing date or priority date and not in conflict with the application but clied to understand the principle or theory underlying the invention annot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone which is clied to establish the publication date of another clied and or the readed reason (as specified).
Further documents are listed in the continuation of box C.  * Special categories of died documents:  *A' document defining the general state of the art which is not considered to be of particular relevance  *E' earlier document but published on or after the international liling date or priority date and not in conflict with the application but died to understand the principle or theory underlying the invention of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone which is died to establish the publication date of another cleiten or other special reason (as specified)  **Y' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone the principle of the considered to involve an inventive step when the document is taken alone the principle of the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone the principle of the claimed invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone the principle of the principle o
*Special categories of cited documents:  *A' document defining the general state of the art which is not considered to be of particular relevance  *E' earther document but published on or after the international filling date  *L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cited to establish the published after the international roll of conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the
*Special categories of cited documents:  *A' document defining the general state of the art which is not considered to be of particular relevance  *E' earther document but published on or after the international filling date  *L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cited to establish the published after the international roll of conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the
*Special categories of cited documents:  *A' document defining the general state of the art which is not considered to be of particular relevance  *E' earther document but published on or after the international filling date  *L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cited to establish the published after the international roll of conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the
*Special categories of cited documents:  *A' document defining the general state of the art which is not considered to be of particular relevance  *E' earlier document but published on or after the international filling date  *L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cited to establish the publication and the considered novel or cannot be considered to involve an inventive step when the document is taken alone considered to involve an inventive step when the document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive and return the international date of another cannot be considered novel or cannot be considered to involve an inventive and return the international cited to establish the application but cited to understand the principle or theory undertying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive and return the international cited to establish the application but cited to understand the principle or theory understand the principle or
*Special categories of cited documents:  *A' document defining the general state of the art which is not considered to be of particular relevance  *E' earlier document but published on or after the international filling date  *L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cited to establish the publication and the considered novel or cannot be considered to involve an inventive step when the document is taken alone considered to involve an inventive step when the document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive and return the international date of another cannot be considered novel or cannot be considered to involve an inventive and return the international cited to establish the application but cited to understand the principle or theory undertying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive and return the international cited to establish the application but cited to understand the principle or theory understand the principle or
*Special categories of cited documents:  *A' document defining the general state of the art which is not considered to be of particular relevance  *E' earther document but published on or after the international filling date  *L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cited to establish the published after the international roll of conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the document is taken alone and the considered to involve an inventive step when the
*Special categories of cited documents:  *A' document defining the general state of the art which is not considered to be of particular relevance  *E' earlier document but published on or after the international filling date  *L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cited to establish the publication and the considered novel or cannot be considered to involve an inventive step when the document is taken alone considered to involve an inventive step when the document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive and return the international date of another cannot be considered novel or cannot be considered to involve an inventive and return the international cited to establish the application but cited to understand the principle or theory undertying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive and return the international cited to establish the application but cited to understand the principle or theory understand the principle or
"A" document defining the general state of the art which is not considered to be of particular relevance  "E" eartler document but published on or after the international filling date  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cletten or other special reason (as specified).  "Y" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone the particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone the particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone the particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone the particular relevance; the claimed invention cannot be considered novel or cannot be consider
*A' document defining the general state of the an which is not considered to be of particular relevance considered to be of particular relevance.  *E' earlier document but published on or after the international filling date  *L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citetten or other special respect as sepand as specified?  **Y' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to represent the sepand as specified?  *Y' document of particular relevance; the claimed invention cannot be considered in involve an inventive step when the document of particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention cannot be considered to represent the particular relevance; the claimed invention can
"E' earlier document but published on or after the International lilling date."  "L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citetten or other special respect as sepand as specified?  "Y' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone which is cited to establish the publication date of another considered to involve an inventive step when the
*L* document which may throw doubts on priority claim(s) or involve an inventive step when the colument is taken acres  which is clied to establish the publication date of another  which is clied to establish the publication date of another  'Y' document of particular relevance; the claimed invention  clied to rether special reason (as specified)  cannot be considered to involve an inventive step when the
l challan of other special reason (as specificu) cannot be considered to involve an inventive sizu vitch the
decliment is combined with one or more other such document
other means each combination being obvious to a person skilled in the ed
*P* document published prior to the international filing date but later than the priority date claimed *a* document member of the same patent family
Date of the actual completion of the international search  Date of mailing of the international search report
29 June 2005 . 08/07/2005
Name and mailing address of the ISA Authorized officer
European Patent Office, P.B. 5818 Patentiaan 2

A 10	ALEX DOGUNENTO CONDUCTORS TO BE DELEVANT	PCT/EP2005/003403
	ation) DOCUMENTS CONSIDERED TO BE RELEVANT  Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Category °	Ontained of descripting, with inducation, where appropriate, or the reservent passages	
X	GUPTA PANKAJ ET AL: "Human LTC-IC can be maintained for at least 5 weeks in vitro when interleukin-3 and a single chemokine are combined with O-sulfated heparan sulfates: Requirement for optimal binding interactions of heparan sulfate with early-acting cytokines and matrix proteins" BLOOD, vol. 95, no. 1, 1 January 2000 (2000-01-01), pages 147-155, XP002301975 ISSN: 0006-4971 the whole document	1-14
X	GUPTA PANKAJ ET AL: "Structurally specific heparan sulfates support primitive human hematopoiesis by formation of a multimolecular stem cell niche" BLOOD, vol. 92, no. 12, 15 December 1998 (1998-12-15), pages 4641-4651, XP002301976 ISSN: 0006-4971 the whole document	1-14
X	LEWIS IAN D ET AL: "Umbilical cord blood cells capable of engrafting in primary, secondary, and tertiary xenogeneic hosts are preserved after ex vivo culture in a noncontact system" BLOOD, vol. 97, no. 11, 1 June 2001 (2001-06-01), pages 3441-3449, XP002301977 ISSN: 0006-4971 the whole document	1-14
P,X .	M. SCHUBERT: "Einfluss regioselektiv modifizierter Heparansulfate auf den Erhalt und die Expansion primitiver hāmatopoietischer Stammzelle und Vorläuferzellen" 'Online! 2004, HEIDELBERG, XP002332370 Retrieved from the Internet: URL:http://www.doktor-schubert.de/download s/Dissertation%20M. Schubert.pdf> the whole document	1-14

C (Continue	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	PCT/EP2005/003403
Category •	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PUNZEL MICHAEL ET AL: "The microenvironment of AFT024 cells maintains primitive human hematopoiesis by counteracting contact mediated inhibition of proliferation."  CELL COMMUNICATION & ADHESION. 2002  MAY-JUN, vol. 9, no. 3, May 2002 (2002-05), pages 149-159, XP009038505  ISSN: 1541-9061 the whole document	1-14
A	GUPTA P ET AL: "Artificial "proteoglycan-like" molecules containing heparan sulfate enhance the ability of cytokines to maintain human hematopoietic stem cells in vitro" JOURNAL OF INVESTIGATIVE MEDICINE, vol. 43, no. SUPPL. 2, 1995, page 342A, XP009038502 & CLINICAL RESEARCH MEETING; SAN DIEGO, CALIFORNIA, USA; MAY 5-8, 1995 abstract	1-14
A	MOORE K A ET AL: "In vitro maintenance of highly purified, transplantable hematopoietic stem cells" BLOOD, W.B. SAUNDERS, PHILADELPHIA, VA, US, vol. 89, no. 12, 1997, pages 4337-4347, XP002220989 ISSN: 0006-4971 abstract	1-14
A	MOORE K A ET AL: "HEMATOPOIETIC ACTIVITY OF A STROMAL CELL TRANSMEMBRANE PROTEIN CONTAINING EPIDERMAL GROWTH FACTOR-LIKE REPEAT MOTIFS" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 94, April 1997 (1997-04), pages 4011-4016, XP002942328 ISSN: 0027-8424 abstract	1-14
P,L	DE 102 45 927 A (DEUTSCHES KREBSFORSCH; RUPRECHT KARLS UNI HEIDELBERG (DE)) 15 April 2004 (2004-04-15) the whole document	1-14

PCT/EP2005/003403

	ation) DOCUMENTS CONSIDERED TO BE RELEVANT  Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
alegory °	Charles of document, with indication, where appropriate, or the relevant passages		
	STRINGER SALLY E ET AL: "Identification of an MIP-lalpha-binding heparan sulfate oligosaccharide that supports long-term in vitro maintenance of human LTC-ICs." BLOOD, vol. 101, no. 6, 15 March 2003 (2003-03-15), pages 2243-2245, XP002301974		1-14
	ISSN: 0006-4971		
	the whole document		
		•	
		•	
			1
	1		
	,		

Form PCT/ISA/210 (continuation of second sheat) (January 2004)

<del>-</del>	MAHONAL SEAHOH REPON			PCT/EP2005/003403		
Patent document oited in search report	Publication date	· · · · · · · · · · · · · · · · · · ·	Patent family member(s)		Publication date	
DE 10245927 A	15-04-2004	DE	10245927	A1	15-04-2004	
				•		
	•					
1						
•	•					
•						
•						

A. KLASSII IPK 7	fizierung des anmeldungsgegenstandes C12N5/06			
	ernationalen Patentidassifikation (IPK) oder nach der nationalen Klass	sifikation and der IPK		
	ACHIERTE GEBIETE er Mindestprofstoff (Klassifikationssystem und Klassifkationssymbol	e )		
IPK 7	C12N	,		
Recherchier	te aber nicht zum Mindestprüfstoff gehörende Veröffentlichungen, sow	vell diese unter die recherchterten Geblete	fallen	
	r internationalen Recherche konsultlerte elektronische Datenbank (Na		Suchbegriffe)	
EPO-In	ternal, BIOSIS, WPI Data, PAJ, EMBAS	E		
C. ALS WE	SENTLICH ANGESEHENE UNTERLAGEN			
Katego <b>rie</b> °	Bezeichnung der Veröffenttichung, soweit erforderlich unter Angabe	der in Betracht kommenden Telle	Betr. Anspruch Nr.	
х	K THEUNISSEN ET AL.: "Long-term e umbilical cord blood cells are prafter ex vivo culture in strom-froulture" 'Online!	eserved ee	1–14	
	Mai 2001 (2001-05), KAREL A DICKE AND ARMAND KEATING , XP002332369 Gefunden im Internet: URL:http://mmserver.cjp.com/gems/blood/ABM			
	T.10.Verfaillie.pdf> Seite 599 - Seite 603			
	-	/		
	·			
		•		
X Weit	lere Veröffentlichungen sind der Fortsetzung von Feld C zu ehmen	X Siehe Anhang Patentfamille		
"A" Veröffe aber r "E" åtteres	ntlichung, die den allgemeinen Stand der Technik definiert, nicht als besonders bedeutsam anzusehen ist Dokument, das jedoch erst am oder nach dem internationalen	T Spätere Veröffentlichung, die nach den oder dem Prioritätsdatum veröffentlich Anmeldung nicht kollidiert, sondern nu Erfindung zugrundeltegenden Prinzips Theorie angegeben ist	r zum Verständnis des der oder der ihr zugrundeliegenden	
"L" Veröffe schelt ander	ntlichung, die geeignet ist, einen Prioritätsanspruch zweileihaft er- en zu lassen, oder durch die das Veröffentlichungsdatum einer en im Recherchenbericht genannten Veröffentlichung belegt werden	"X" Veröffentlichung von besonderer Bedei kann allein aufgrund dieser Veröffentli erfinderischer Tätigkeit beruhend betre "Y" Veröffentlichung von besonderer Bedei	chief werden chief werden chief werden	
soll of ausge "O" Veröffe eine E	ter die aus einem anderen besonderen Grund angegeben en (wie erführt) entlichung, die sich auf eine mündliche Offenbarung, Benutzung, eine Ausstellung oder andere Maßnahmen bezieht	kann nicht als auf erfinderischer Tätigi werden, wenn die Veröffentlichung mit Veröffentlichungen dieser Kalegorie in diese Verbindung für einen Fachmann *8.* Veröffentlichung, die Mitglied derselber	ceit beruhend betrachtet einer oder mehreren anderen Verbindung gebracht wird und nahellegend ist	
	Abschlusses der Internationalen Recherche	Absendedatum des internationalen Re	cherchenberichts	
. 2	9. Juni 2005	08/07/2005		
Name und	Postanschrift der Internationalen Recherchenbehörde Europäisches Patentamt P.B. 5818 Patentiaan 2	Bevollmächtigter Bediensteter		
	NL − 2280 HV Rijswijk Tel. (+31−70) 340−2040, Tx. 31 651 epo nl, Fax: (+31−70) 340−3016	Pilat, D		

0.5000	(Fortsetzung) ALS WESENTLICH ANGESEHENE UNTERLAGEN				
· ·	ung) ALS WESENTLICH ANGESEHENE UNTERLAGEN  Bezeichnung der Veröffentlichung, soweit erforderlich unter Angabe der in Betracht komm	enden Telle	Betr. Anspruch Nr.		
Kategorie*	Describing der Acionentimentiff zower ennochiert milet Vildabe det in Bellacut komm	enden Lotte	Juli, misprudii Ni.		
X	GUPTA PANKAJ ET AL: "Human LTC-IC can be maintained for at least 5 weeks in vitro when interleukin-3 and a single chemokine are combined with 0-sulfated heparan sulfates: Requirement for optimal binding interactions of heparan sulfate with early-acting cytokines and matrix proteins" BLOOD, Bd. 95, Nr. 1, 1. Januar 2000 (2000-01-01), Seiten 147-155, XP002301975 ISSN: 0006-4971 das ganze Dokument		1-14		
X	GUPTA PANKAJ ET AL: "Structurally specific heparan sulfates support primitive human hematopoiesis by formation of a multimolecular stem cell niche" BLOOD, Bd. 92, Nr. 12, 15. Dezember 1998 (1998–12–15), Seiten 4641–4651, XP002301976 ISSN: 0006–4971 das ganze Dokument		1-14		
X	LEWIS IAN D ET AL: "Umbilical cord blood cells capable of engrafting in primary, secondary, and tertiary xenogeneic hosts are preserved after ex vivo culture in a noncontact system" BLOOD, Bd. 97, Nr. 11, 1. Juni 2001 (2001-06-01), Seiten 3441-3449, XP002301977 ISSN: 0006-4971 das ganze Dokument		1–14		
P,X	M. SCHUBERT: "Einfluss regioselektiv modifizierter Heparansulfate auf den Erhalt und die Expansion primitiver hämatopoietischer Stammzelle und Vorläuferzellen" 'Online! 2004, , HEIDELBERG , XP002332370 Gefunden im Internet: URL:http://www.doktor-schubert.de/download s/Dissertation%20M.Schubert.pdf> das ganze Dokument		1-14		

ernationales Aktenzeichen PCT/EP2005/003403

(Fortsetz	Fortsetzung) ALS WESENTLICH ANGESEHENE UNTERLAGEN			
degorie°	Bezeichnung der Veröffentlichung, soweit erforderlich unter Angabe der in Betracht kommenden	Telle Betr. Anspruch Nr.		
1	PUNZEL MICHAEL ET AL: "The microenvironment of AFT024 cells maintains primitive human hematopolesis by counteracting contact mediated inhibition of proliferation."  CELL COMMUNICATION & ADHESION. 2002  MAY-JUN,  Bd. 9, Nr. 3, Mai 2002 (2002-05), Seiten	1-14		
	149-159, XP009038505 ISSN: 1541-9061 das ganze Dokument	·		
4	GUPTA P ET AL: "Artificial "proteoglycan-like" molecules containing heparan sulfate enhance the ability of cytokines to maintain human hematopoietic stem cells in vitro" JOURNAL OF INVESTIGATIVE MEDICINE, Bd. 43, Nr. SUPPL. 2, 1995, Seite 342A, XP009038502 & CLINICAL RESEARCH MEETING; SAN DIEGO, CALIFORNIA, USA; MAY 5-8, 1995 Zusammenfassung	1-14		
<b>A</b>	MOORE K A ET AL: "In vitro maintenance of highly purified, transplantable hematopoietic stem cells" BLOOD, W.B. SAUNDERS, PHILADELPHIA, VA, US, Bd. 89, Nr. 12, 1997, Seiten 4337-4347, XP002220989 ISSN: 0006-4971 Zusammenfassung	1-14		
A	MOORE K A ET AL: "HEMATOPOIETIC ACTIVITY OF A STROMAL CELL TRANSMEMBRANE PROTEIN CONTAINING EPIDERMAL GROWTH FACTOR-LIKE REPEAT MOTIFS" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, Bd. 94, April 1997 (1997-04), Seiten 4011-4016, XP002942328 ISSN: 0027-8424 Zusammenfassung	1-14		
P,L	DE 102 45 927 A (DEUTSCHES KREBSFORSCH; RUPRECHT KARLS UNI HEIDELBERG (DE)) 15. April 2004 (2004-04-15) das ganze Dokument	1-14		

Formblatt PCT/ISA/210 (Fortsetzung von Blatt 2) (Januar 2004)

mationales Aktenzeichen PCT/EP2005/003403

		5/003403			
(Fortsetz (alegorie°	rtsetzung) ALS WESENTLICH ANGESEHENE UNTERLAGEN  Offe* Bezeichnung der Veröffentlichung, soweit erforderlich unter Angebe der in Betracht kommenden Telle Betr. Anspruch Nr.				
eleñolle,	Peroivering an Agraightenist Souge aurinaustri must wulkane nei ei Denscut vouri				
	STRINGER SALLY E ET AL: "Identification of an MIP-lalpha-binding heparan sulfate oligosaccharide that supports long-term in vitro maintenance of human LTC-ICs." BLOOD, Bd. 101, Nr. 6, 15. März 2003 (2003-03-15), Seiten 2243-2245, XP002301974 ISSN: 0006-4971 das ganze Dokument		1-14		
,					
-					
		•			
		•			
		•			
	•				
			·		

Formblatt PCT/ISA/210 (Fortsetzung von Blatt 2) (Januar 2004)

mallonales Aldenzeichen PCT/EP2005/003403

Datum der Veröffentlichung im Recherchenbericht angeführtes Patentdokument Mitglied(er) der Patentfamilie Datum der Veröffentlichung 15-04-2004 15-04-2004 DE 10245927 A1 DE 10245927